

WHAT IS CLAIMED IS:

1. A radio microphone set with digital transmission and analog signal correction, comprising a radio-frequency transmitter and a radio-frequency receiver, provided, respectively, with an encoding unit driven by an audio signal detector and with a signal decoding unit that drives sound diffusion elements, and wherein said encoding unit comprises an analog/digital signal converter, said transmitter being provided with a first and a second line leading to respective transmission components for transmission at different frequencies, the first line for a digital signal and the second line for an analog signal, the receiver being provided with respective lines that originate from receiving components for receiving the digital and the analog signals, and wherein a device for detecting an incorrect signal and a digital/analog signal converter are further provided on the digital signal line, and wherein a switch that is driven by said detection device is connected to said digital and analog signal lines to send to said sound diffusion elements a signal that arrives from said signal converter, replacing an incorrect signal with the analog signal.

2. The set of claim 1, wherein said transmitter has a first preamplification stage in input.

20 3. The set of claim 1, wherein said first line of the transmitter comprises a preemphasis unit.

4. The set of claim 3, wherein said first line of the transmitter comprises an analog/digital signal converter.

25 5. The set of claim 4, wherein said first line of the transmitter comprises a data encoder.

6. The set of claim 5, wherein said first line of the transmitter comprises a component for transmission at a frequency of 2.4 GHz.

30 7. The set of claim 6, wherein said second line of the transmitter comprises a delay unit, provided in output with a transmission component that the delay unit drives for transmission at a frequency of 900 MHz.

8. The set of claim 1, wherein said digital signal line of the receiver comprises a 2.4-GHz tuner.
9. The set of claim 8, wherein said digital signal line of the receiver comprises a data shaping unit.
- 5 10. The set of claim 9, wherein said digital signal line of the receiver comprises a data receiver and decoder that generates a pulse when quality of a signal received from said shaping unit drops below a certain preset level.
11. The set of claim 10, wherein said digital signal line of the receiver comprises a digital/analog signal converter.
- 10 12. The set of claim 11, wherein said digital signal line of the receiver comprises an audio rephasing unit.
13. The set of claim 1, wherein said analog signal line of the receiver comprises a 900-MHz tuner.
14. The set of claim 12, wherein said analog signal line of the receiver
15 comprises an audio rephasing unit.
15. The set of claim 14, wherein said receiver comprises a switch with two signal inputs, to which outputs of the audio rephasing unit of the digital signal line and the audio rephasing unit of the analog signal line are connected, and a control input, to which an output of the incorrect signal
20 detection device is connected.
16. The set of claim 1, wherein said receiver comprises a single terminal stage that is constituted by a deemphasis unit.